

DOCKET NO: 264519US0PCT

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF :
KARL HAEBERLE, ET AL. : EXAMINER: NILAND, P. D.
SERIAL NO: 10/522,715 :
FILED: JANUARY 28, 2005 : GROUP ART UNIT: 1796
FOR: WATER-EMULSIFIABLE :
ISOCYANATES HAVING IMPROVED
PROPERTIES

SECOND DECLARATION UNDER 37 C.F.R. § 1.132

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

SIR:

I, Karl Haeberle, declare and state as follows:

1. I am the same Karl Haeberle who executed a declaration that I understand was filed on February 1, 2008 (first Haeberle Declaration).
2. I am familiar with the claims, and have read the Office Action mailed March 21, 2008. In the Office Action, the Examiner dismisses the first Haeberle Declaration because the same weight amount, and not the same molar amount, of the polyethylene oxide 500 (PEO 500) was used in the experiment based on Example 2, as modified.
3. I have also been informed that in an interview between counsel for the Applicants and the Examiner on April 29, 2008, as reflected in the Interview Summary for the interview, that the Examiner suggested presenting the same comparative experiment again but

preserving the same molar amount. Accordingly, the following comparative experiment was conducted under my supervision and/or control.

4. In the comparative experiment, the same molar amount of the PEO 500 was used as the amount of PEO 1000 used in Example 2.

5. The materials used are as follows:

Example IIa: Isocyanates A and B hydrophilicized

Isocyanate A:

hexamethylene diisocyanate (HDI) isocyanurate having an NCO content of 22.2% and a viscosity at 23°C of 2.8 Pas

Isocyanate B:

isophorone diisocyanate (IPDI) isocyanurate having an NCO content of 17.2% (Vestanat® T 1890/100 from Degussa)

6. The comparative experiment was carried out as follows:

60 g (0.246 eq NCO) of isocyanate B were added to 3.5 g (0.007 mol) of a PEO 500, prepared starting from methanol, and the components were stirred at 130°C for 80 minutes. The mixture was then cooled to room temperature.

The product is a solid polyisocyanate (b1) having an NCO content of 15.7%.

The mixtures were prepared as described at page 18, lines 30-33 of the above-identified application.

7. The hydrophilicized polyisocyanate can be emulsified in water to give a coarse emulsion, from which a solid precipitates.

8. For the aqueous coating material a binder dispersion comprising the following components was used.

Amount [parts by weight]	Component		
240	Binder	Aqueous dispersion of an OH-functional polyester-polyurethane, OH number about 45 mg KOH on solids (about 40% by weight polyurethane, about 6.5% 1-methyl-2-pyrrolidone, remainder water)	Dactan® VTW 1225 (Solutia)
119	Binder	Water-dilutable, OH-functional polyester resin	Plusaqua® V 608 (Omya)
18	Dispersant	Nonionic dispersing auxiliary, fluorinated polymeric aliphatic ester	Fluorad® FC 430 (3M)
9	Additive	2-Amino-2-methyl-1-propanol (90% strength solution in water)	AMP-90® (Angus Chemie)
310		Water	

The components of the binder dispersion were mixed intensely with one another.

9. To prepare the coating materials equal amounts of the binder dispersion (based on its solids content) and of the polyisocyanate synthesized in the comparative experiment were mixed intensely with one another in order to achieve maximum homogeneity in the emulsion of the binders and the crosslinker.

10. The prepared emulsion was applied to a degreased steel panel using a 200 μ m doctor blade. The applied emulsion was flashed off at room temperature for 20 minutes and then the coated panel was baked in a gradient oven for 30 minutes. The treated panels were stored under standard conditions (50% humidity, 23°C) for 24 hours prior to testing.

11. The coatings obtained were whitish turbid and not suitable for use as varnishes. Thus, the coatings obtained were inferior to those produced by the comparative experiment described in the first Haerberle Declaration.

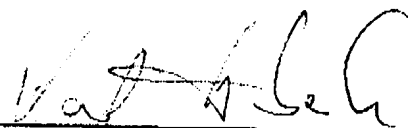
12. The undersigned declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.

13. Further declarant saith not.

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Signature

Date

26/05/2008